

ENUMERATION
OF THE DIPTERA OF THE MALAY ARCHIPELAGO

COLLECTED •

by Prof. ODOARDO BECCARI etc.

SUPPLEMENT

by C. R. OSTEN SACKEN

In preparing this enumeration, (which appeared in the *Annali del Museo Civico* etc. Vol. XVI), I had left undescribed a very remarkable *Dexid*, brought by M.^r Beccari from Celebes. The reason was, my little acquaintance with that group of *Diptera*, the hope to identify that species yet with some described form, or, at least, to discover some more specimens of it in the museums which, in the mean time, I might visit. As I have been disappointed in these expectations, I deem it justice to the discoverer to have this new genus published without further delay, the more so as its very unusual structure renders it easily recognizable. — Some additions and corrections to my former paper, as well as some notes illustrative of the fauna of the Archipelago, will also find their place here. For these I am largely indebted to my friend M.^r Bigot in Paris, who very generously allowed me to make a thorough study of some parts of his collection.

1. *Urodexia* nov. gen.

(Dexinae)

Belongs to the Dexinae with a glabrous arista, and will be easily recognized by the shape of the abdomen, which ends in a long, subcylindrical, slender, slightly tapering tail, beset with scattered bristles and ending in a blunt point; the middle legs are enormously prolonged.

Head a trifle broader than the thorax, projecting very little in front of the eyes, and very flat behind them; so that the vertical margin is very abrupt, the occipital orbit of the eye reduced to nothing above, and gradually increasing downwards; lower occipital orbit moderately swollen; cheeks narrow.

Eyes large, their horizontal diameter equal to about one half the vertical; they descend very low (the cheeks being narrow) and are glabrous.

Facial orbits narrow, glabrous; narrowest below, where the frontal fissure almost comes in contact with the eye; broader near the antennae; the *face*, between the orbits, shows two furrows of moderate depth running from the base of the antenna to the peristomium; the interval between them is nearly level (therefore no intrafoveal ridge to speak of); these furrows are not the antennal foveae, the latter being almost obsolete; in a favorable light two impressions, representing them, are visible. A single vibrissa, of moderate strength, is inserted near the end of the above-mentioned furrows, a little above the peristomium; a few (3-4) smaller bristles below the vibrissa, a single small bristle still lower, on the cheek, near the lateral peristomium; a few minute hairs above the vibrissa on the edge of the lower facial orbit. *Peristomium* nearly horizontal, almost imperceptibly arched between the vibrissae; its edge glabrous.

Frontal orbits moderately broad, coalescent on the vertex, separated lower down by a long and narrow triangular frontal stripe; they are beset with bristles, from the antennae upwards, as follows: 6 or 7 bristles in a row, beginning near the an-

tennal scapus; a stronger bristle, inserted more obliquely; a similar one above it; a strong, erect bristle, still higher, in front of the ocelli; between the three last bristles, some weaker ones are inserted; the ocellar pair of bristles is exceedingly minute; four erect bristles on the vertical edge rather weak, especially the intermediate pair (postvertical pair?).

Antennae. Scapus small, third joint long and narrow, with parallel sides (the length is 5 or 6 times the breadth); arista about $2\frac{1}{2}$ times the length of the third joint, somewhat swollen at the base, glabrous (a strong lens shows a microscopic pubescence which disappears towards the tip).

Proboscis with rather small lips; *palpi* linear, long.

Thorax short and square; macrochaetae of moderate strength and not numerous; four dorso-central rows, the outer ones of five bristles each; two intrahumeral bristles, one humeral; all these are inserted among smaller hairs; about five mesopleural; two sternopleural, the posterior one very long; a tuft of hypopleural bristles.

Scutellum as long as it is broad, with six long macrochaetae, a much weaker pair of bristles on the apex.

Abdomen tapering from base to tip, narrow; 2.^a and 3.^a segments of nearly equal length, longer than the first; the fourth has a conical base, prolonged in a slender, very slightly tapering tail, nearly as long as segments 2.^a and 3.^a taken together, and ending in a blunt point. On the underside, at the base of the 4.th segment, there is a slit, within which the genitalia are visible (I hold the specimen for a male); this slit extends some little distance on the underside of the tail; but beyond this the slit is not visible, although I believe that it extends to the very end of the tail; the latter appears like a closed, cylindrical tube of the same chitinous covering as the remainder of the body (not thicker, or « horny », like the ovipositors of some flies); the outer surface of the tail is uneven, and beset with scattered bristles, a few of them forming a tuft at the tip.

The *macrochaetae* on the abdomen are as follows: on the first segment, a lateral bristle, and a dorsal pair, near the hind margin; second and third segments: a dorsal discal pair and a ditto marginal; a lateral bristle near the hind margin.

Tegulae, lower valve much larger than the upper one.

Legs, front and hind pair of moderate length (for a *Dexia*); the middle pair twice as long as the front pair (the front legs in my specimen are about 11-12 mm. long; the middle leg 25 mm.). The legs, beside the usual, short pubescence, show but a few more conspicuous bristles; there are a few short bristles on the upper side of the front femora; on the underside, there is a row of long, but slender bristles, sparse on the proximal portion of the femur, more close together towards the tip; the front tibiae show a single conspicuous bristle on the hinder side, below; also a pair of apical bristles, besides a number of smaller ones. In the same way, the hind legs have, on the underside, a row of four or more long, slender bristles at equal intervals, and a row of shorter bristles on the upper side; the hind tibiae are somewhat incrassated beyond their rather thin base, and bear some scattered bristles. The middle legs are remarkably bare of bristles. The femora are nearly of the same length as the tibiae in all the pairs.

Tarsi. Front pair, about $1\frac{1}{2}$ the length of the tibiae; the relation of the joints is nearly this: 4, $2\frac{1}{4}$, $1\frac{3}{4}$, 1, 1.

Middle pair, a little more than twice the length of the tibiae; the joints about thus: $2\frac{1}{3}$, 1, $1\frac{1}{3}$, $2\frac{1}{2}$, 1.

Hind pair about $1\frac{1}{3}$ the length of the tibiae; the relation of the joints is nearly the same as in the front pair: 4, $2\frac{1}{2}$, 2, 1, $\frac{3}{4}$.

Ungues of moderate size, slender; *pulvilli* large.

Wings rather narrow; venation of the *Dexiariae*; no costal spine; first posterior cell narrowly open; elbow of fourth vein

angularly rounded, without appendage; this vein, beyond the elbow, has a hardly perceptible curvature; posterior crossvein strongly bisinuate.

***Urodexia penicillum* n. sp.**



Face, cheeks and posterior orbits grayish-silvery; the frontal and facial orbits dull golden; frontal stripe black; antennae grayish-pollinose, with a brown ground color; base of third segment and of the arista reddish; tip of the proboscis and palpi brownish-yellow; cheeks and posterior orbits with a soft, whitish-gray pubescence. Thoracic dorsum dull golden-yellow, with four black stripes interrupted by the suture and not reaching the scutellum; the lateral stripes are also interrupted in front. Pleurae and front coxae grayish pollinose. Scutellum velvet-black; the tip with a yellowish-gray pollen. Abdomen: first segment black, with yellowish sides; the second brownish-yellow with a slight dull golden-yellow pollen above and a hoary one on the venter; the hind margin of this segment is

black, which color has, in the middle of the back, a triangular expansion, reaching the middle of the segment; third segment similar to the second, only the black hind margin is much broader laterally; fourth segment grayish-pollinose at the base, the tail black. Legs black; femora, in some places, grayish hoary. Tegulae yellowish. Wings with a light brownish tinge, slightly yellowish on the proximal half of the anterior margin. Length about 11 mm. (exclusive of the tail).

Hab. Kandari, Celebes; April 1874 (O. Beccari). A single specimen, apparently a male.

NB. In using the above description, especially in what regards the arrangement of the bristles, it must be borne in mind, that it was drawn from a single specimen. I have another specimen before me (Ternate, Beccari 1875), but I am not sure whether it is the same species. The facial and frontal orbits, as well as the upper part of the thorax are more gray than golden-yellow; there is very little yellow on the abdomen and the wings are purer hyaline; the frontal triangle is much shorter. The arrangement of the bristles seems to be the same, as far as the indifferent preservation permits to discern it. The specimen is a little smaller than the other (8 mm. to the beginning of the tail).

II. Note on the Diptera with an *Achias*-like development of the head (*Laglaisia*, *Anaeropsis*, *Zygothrica*).

In my Enumeration of the Diptera of the Malay Archipelago etc. (Ann. Mus. Civ. Gen. XVI, p. 476) I have published a notice on the known species of *Achias*. I can complete it now with a notice on the two *Achias*-like genera: *Laglaisia* and *Anaeropsis*, which, thanks to M.^r Bigot's kindness, I have been able to study in his collection.

Laglaisia caloptera Bigot, Ann. Soc. Ent. Fr. 1880, 92 (New Guinea *male*), has the oculiferous peduncles enormously long, both together often being as long as the whole body, but much

slenderer than in *Achias*; in the female the head has the ordinary shape. *Laglaisia* bears a striking generic resemblance to *Achias ichneumoneus* Westw. Trans. Ent. Soc. Lond. V, p. 235, Tab. 23, f. 8 (the species are evidently distinct, as *L. caloptera* has banded wings); nevertheless there are differences which still leave me doubtful whether *A. ichneumoneus* is a *Laglaisia*. The anal cell of *Laglaisia* is closed by a crossvein which is convex (for instance as in Loew, Mon. N. Am. Dipt. III, Tab. 8, f. 2) and not concave, as in M.^r Westwood's figure of *A. ichneumoneus*. The structure of the head, as seen in front (Westw. l. c. f. 8a) is somewhat different. There is, at the end of the abdomen (♂) a tuft of a few long hairs, which do not exist in *A. ichneumoneus* ♂. Finally, the female of the latter species, as described and figured, is provided with oculiferous peduncles, although they are shorter than those of the male. (It remains to be proved however whether this is a female, as the ovipositor is not mentioned in the description; it may be a male with shorter peduncles?). In *Laglaisia*, the tuft of long hairs at the end of the abdomen (♂) and the shape of the anal cell remind one of *Cleitamia*, and it is probable that these genera are related, the more so as the patria is the same.

Anaeropsis Lorquini Bigot, Ann. etc. 1866, p. 201 (Waigiou) has the oculiferous peduncles even longer than *Laglaisia*, and, nevertheless, in the system, it is far removed from *Achias*, or *Laglaisia*. It is a true Micropezid, related to *Calobata* and still nearer to my new genus *Nestima* (New Guinea). It has the body, the wings, the legs and the male anal appendages of the Micropezidae; even the white front tarsi!

Scutel and metathorax have the same gibbous structure as in *Nestima*. I could not verify the structure of the middle femora, because they were broken in the two specimens which I saw; nor of the ovipositor, because the specimens were males.

A. Lorquini is identical with *Phytalmia guttipennis* Walker, J. Proc. Lin. Soc. V, 269, 1861 (Waigiou). As it is not a *Phy-*

talma, the species must be called *Anaeropsis guttipennis* Walker. This author also describes the male only, and thus we do not know whether the female is provided with oculiferous peduncles or not.

The insect described as *Zygothrica robusta* Bigot, Ann. Soc. Entom. 1880, p. 93 (New Guinea), does not belong to that genus, which, as I have said in my Enumeration etc. p. 90, is probably related to *Drosophila*. M.^r Bigot's species is an *Achias* of the elongated type of *A. dacoides* Walk.; it may even be the same species.

A fact, connected with the geographical distribution of the diptera with laterally expanded heads, deserves to be noticed here. New-Guinea, with its dependencies, is the home of the wonderful forms of *Achias*, *Anaeropsis* and *Laglaisia*, while *Diopsis*, so abundantly represented in South Eastern Asia (even in Celebes), has not yet been found in New Guinea.

III. Additions and corrections to the «Enumeration» etc.

p. 7. *Sciara* sp. (Celebes). A similar, perhaps the same, *Sciara* with a red thorax, has been recently described by M.^r v. d. Wulp (Midden Sumatra etc. 1881; *Diptera* p. 6) as *S. rufithorax*.

p. 23. *Acanthina obesa*. I have had occasion since to see the specimen from the Philippines, determined by M.^r Walker, and I believe his determination to have been erroneous. The species has the discal cell hyaline, and is therefore *azurea* Gerst. or a closely allied species.

p. 25. *Tinda modifera*. To the synonymy, add *Biastes indicus* Walk. Ins. Saund. 81, Tab. III, f. 3, which is the older name for the genus and species. The type of *Elasma*, about which I inquired in the mean time, does not exist any more.

- p. 27. **Nerua**. In writing about this genus I implied, although I did not distinctly mention, that *Nerua* Wk. and *Evasa* Wk. are the same thing. The latter name is the earlier one.
- p. 50. **Syrphus salviae**. — Loew, Südafr. Dipt. 311, claims this name, with the quotation from Fabricius for the *african* species, for which it was originally intended. The *yellow-faced* form, my *S. salviae* Wied. (non Fab.), must therefore receive another name, unless it is proved to be the same as the *african* form, which is possible, because *Syrphidae* often have a very wide distribution. The *black-faced* form would be *S. Macquarti* Dol. The species belongs to the genus *Asarkina* Macq., more closely defined by Loew, l. c.
- p. 51. **Graptomyza lineata**. I have found, in M.^r Bigot's collection, a number of well preserved specimens, which enable me to give a fuller description.

Graptomyza lineata O. SACK.

Ann. Mus. Civ. Gen. XVI, p. 439.

Of the same type with *G. longirostris* Wied. (II, 208), the stature being elongated, the third antennal joint long and narrow, the body marked with longitudinal stripes, the proboscis exerted far beyond the tip of the rostriform epistoma.

Body and legs altogether reddish-yellow; epistoma with a blackish-brown stripe; antennae reddish; upper edge of the third joint brown; arista yellow, brownish towards the tip; short-plumose in the middle. Thorax: a longitudinal blackish-brown line placed, one each side, immediately inside of the humeral callus; they become evanescent before reaching the scutellum; the depression of the scutellum is large and concolorous; abdomen with three well-marked black or brown longitudinal stripes, beginning at the base of the second segment and reaching the tip of the abdomen; halteres and legs yellow, tips of tarsi brownish. Wings yellowish-hyaline, sometimes with

a brownish shade along the apex; stigma saturate-yellow, more or less brown at the proximal end.

Hab. Ternate (Beccari, 1875) immature female in the Mus. Civico Genoa; half a dozen specimens in M.^r Bigot's collection in Paris.

p. 55. **Solenaspis Beccarii.** In a *NB.* to my description I said that *Plagiocera nitens* Bigot, Ann. etc. 1880, p. 85, could not well be the same species, because the coloring of *Beccarii* was green, and not coppery, and because the characteristic fulvous tomentum was not mentioned in M.^r Bigot's description. I have seen the type of *P. nitens* since; it is the same species as mine. The term *coppery* (*cuivreux*) does not describe the species well, and should be modified into *metallic-green*.

M.^r Bigot's specimen is a female; the front is comparatively narrow, broadest above the antennae, gradually coarctate towards the vertex; the latter shows a very flat swelling, occupying the whole space between the eyes; the ocelli are in front of that swelling.

As to my genus *Solenaspis*, it will have to embrace a number of species from Southern Asia and Africa, which show some of the characters of *Pteroptila* (*Plagiocera*), but have a broad and short scutellum, provided with a distinct rim. *Plagiocera maculipennis* Loew, Südafr. Dipt. 217, is very probably one of these species; also *P. haemorrhoea* Gerst. from Zanzibar.

p. 58. **Rutilia pretiosa.** Add to the synonymy: *Formosia smaragdifer* Bigot, Ann. Soc. Ent. Fr. 1874, 462; Tab. 8, f. 3!

p. 71. **Trypeta quadrifera.** Add to the synonymy *Themara ampla* Dolesch. 3.^{de} Bijdr. (non Walker!). Original drawings by Doleschall, of which I possess copies, prove this synonymy. On p. 73, line 10 from bottom, strike out the words: Doleschall etc. has it from Amboina.

p. 78. *Stenopterina chalybea*. A copy of an original coloured drawing, by Doleschall, which I now possess, proves that my identification was correct.

p. 102. *Diopsis subnotata*. Add as a synonym: *D. argentifera* Bigot, Ann. Soc. Ent. Fr. 1874, p. 112! (Celebes).

p. 104. *Notiphila sinensis* Schiner, is a *Paralimna*! In identifying the species, from the types in Vienna, I had neglected to verify the genus.

IV. List of the new genera and new species described in the Enumeration of the Diptera of the Malay Archipelago etc.

NB. The figures refer to the pages of the *Annali Mus. Civ. etc.* Vol. XVI, unless otherwise stated. The new genera are in larger type.

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SUPPLEMENT.

- URODEXIA penicillum, Celebes.
Graptomyza lineata (see above).